

WHAT IS CLAIMED IS:

1. A method for automatically configuring an entity comprising:
receiving a message from the entity including geographical location information for
the entity, and
5 using the received geographical location information to assign an identifier to the
entity.
2. The method in claim 1, further comprising:
establishing a relationship between geographical location information for the entity
and the entity.
3. The method in claim 2, further comprising:
determining the identifier using the received geographical location information and
the established relationship.
4. The method in claim 2, wherein the identifier is a packet data address, and
wherein the establishing step further includes associating the geographical location
15 information with the packet data address.
5. The method in claim 2, wherein the identifier is a domain name, and
wherein the relationship associates a domain name of the entity with its geographical
location information.
6. The method in claim 1, further comprising:
20 providing the identifier to the entity.
7. The method in claim 6, further comprising:
the entity using the identifier in packet data communications.
8. The method in claim 1, wherein the receiving and using steps are performed
by a packet address server.
- 25 9. The method in claim 8, wherein the server and the entity communicate using
dynamic host configuration protocol (DHCP).

10. The method in claim 9, wherein the entity determines its geographical location information using a geographical location determining receiver and sends the location information in a dynamic host configuration protocol (DHCP) DISCOVER message to the server.

11. The method in claim 10, wherein the server compares the geographical location information to a list provided by an operations entity that includes geographical location information for each entity on the list.

12. The method in claim 1, further comprising:
using the identifier to communicate packet information with the entity.

13. The method in claim 1, wherein the entity is a wire or wireless node.

14. The method in claim 1, wherein the entity is an entity in a cellular communications system.

15. The method in claim 14, wherein the entity is a radio base station in a cellular communications system.

16. A communications system comprising:
a host network;
multiple hosts coupled to the host network and capable of communicating packet data over the host network;
a packet address server, coupled to a host network, configured to store for each of plural hosts a corresponding geographical location; and
a new host, coupled to the host network, configured to send a message requesting a packet data address, the message including geographical location information for the new host,
wherein the packet address server is configured to determine a corresponding packet data address for the new host using the new host's geographical location information.

17. The communications system in claim 16, wherein the packet address server is configured to provide the packet data address to the new host.

18. The communications system in claim 17, wherein the packet data address is used by the host in packet communications over the host network.

19. The communications system in claim 16, further comprising:
an operations or planning node for providing to the packet address server a list of
host identifiers and corresponding geographical location information.

20. The communications system in claim 19, wherein the list includes a
predetermined packet data address for each host in the list.

21. The communications system in claim 19, wherein the list includes a domain
name for each host in the list.

22. The communications system in claim 19, wherein the host network is a radio
communications network, the new host is a radio communications network node, and the
operations or planning node is a radio network planning node.

23. The communications system in claim 16, wherein the packet address server
is a dynamic host configuration protocol (DHCP) server, the message is a
DHCPDISCOVER message, and the DHCP server provides an IP address to the host in a
DHCPOFFER message.

24. The communications system in claim 16, wherein the host is a wire or
wireless node.

25. The communications system in claim 16, wherein the host includes a
geographical location receiver for receiving location information from which the receiver
provides to the host geographical coordinates corresponding to the location of the host.

26. The communications system in claim 25, wherein the receiver is a GPS
receiver.

27. For use in a communications system that includes a network coupled to multiple hosts, a server coupled to the network, comprising electronic circuitry configured to:

store for each of plural hosts corresponding geographical location information;
 receive a message from a new host coupled to the network requesting a packet data address, the message including the geographical location information for the new host;
 determine a corresponding identifier for the new entity using the geographical location information for the new host.

28. The server in claim 27, wherein the server is a dynamic host configuration protocol (DHCP) server, the message is a DHCPDISCOVER message, and the DHCP server provides an IP address to the entity in a DHCPPOFFER message.

29. The server in claim 28, wherein the geographical location is associated with the IP address.

30. The server in claim 27, wherein the electronic circuitry is configured to compare the geographical location information for the new host to a list provided by an operations entity that includes host geographical location information.

31. For use in a communications system that includes a network coupled to multiple hosts and a server coupled to the network and storing for each of plural hosts corresponding geographical location information, a new host node coupled to the network comprising electronic circuitry configured to:

determine geographical location information for the new host;
 generate a message to the server requesting an identifier, the message including the determined geographical location information; and
 receive a response from the server including an identifier corresponding to the new host node.

32. The new host node in claim 31, wherein the host network is a radio communications network and the new host node is a radio communications network node.

33. The new host node in claim 32, wherein the radio communications network node is a base station.

34. The new host node in claim 31, wherein the new host node is a device having communications circuitry.

35. The new host node in claim 31, wherein the new host node includes a geographical location receiver for receiving location information providing to the new host node geographical coordinates corresponding to the location of the new host node.

36. The new host node in claim 35, wherein the receiver is a GPS receiver.

37. The new host node in claim 31, wherein the new host node is a wireline or wireless node.

38. For use in a radio communications network, a method comprising using geographical location coordinates of a base station to automatically provide an Internet Protocol (IP) address to the base station after the base station is attached to the radio communications network.

39. The method in claim 38, wherein the base station includes a GPS receiver for determining its geographical location, the base station sending its geographical location to an IP address server.

40. The method in claim 38, wherein the geographical coordinates for the base station are associated with the IP address by an operations or planning entity before the base station is attached to the radio communications network.